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Report of the Special Rapporteur on the human right to safe drinking water and sanitation

Summary

Access to affordable water and sanitation services is crucial for the realization of the human rights to water and sanitation. Yet, the issue of affordability does not always receive the attention it deserves. The present report seeks to address this gap and to define affordability from the perspective of human rights. It discusses the importance of setting concrete standards to determine affordability, including for those populations that do not receive formal services. It puts affordability in the broader context of ensuring environmental and economic sustainability, and discusses the impact of disconnections as a result of inability to pay. The report discusses who benefits from public financing in current practice, and then considers a variety of different mechanisms to ensure affordability of services for all through public financing and devising appropriate tariff schemes, including their advantages and challenges. Finally, the report discusses the importance of regulating and monitoring affordability before providing conclusions and recommendations.

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I. Introduction

1. The present report is submitted in accordance with Human Rights Council resolution 24/18. Access to affordable water and sanitation services is crucial for the realization of the human rights to water and sanitation. Where water or sanitation services are available but not affordable, people will not be able to use sufficient amounts of water and adequately maintain latrines, or will turn to cheaper, unsafe sources or practices, or will compromise the realization of other human rights such as food, housing, health or education. However, the issue of affordability does not always receive the attention it deserves. As people will go to great lengths to pay for water to ensure their survival and health, there is often an assumption that people will obtain the water they need even without State support. Similarly, monitoring practices sometimes assume that people have access without considering whether they can actually afford services. The results of this neglect on people's lives, well-being and human rights are devastating.

2. Ensuring affordability is complex and requires different interventions in different contexts. People's capacity to pay for water and sanitation differs depending on their socio-economic situation, as well as the method of service delivery. States must find ways of guaranteeing affordability, especially for the most disadvantaged individuals and communities, while also ensuring overall sustainability of services.

3. This report considers the affordability of water and sanitation at the household level. The State's obligations to ensure affordable access to water and sanitation in institutions – such as schools, health centres and prisons – or at work and in public spaces is also essential, but is beyond the scope of this report. State obligations in institutional contexts are different and may require direct provision. In any case, affordability should never be a barrier for children, women and men to accessing water and sanitation when they are outside the home.

4. From the perspective of human rights, the starting point for State decision-making on public financing and policy for water and sanitation service provision is that water and sanitation must be affordable to all. This differs starkly from the purely economic perspective. The focus in the context of water and sanitation services tends to be on cost recovery, whether full or partial. Economic perspectives and human rights perspectives are not impossible to reconcile, but human rights require ensuring affordable service provision for all, regardless of ability to pay, and economic instruments must be (re-)designed to achieve this objective.

5. While the human rights framework does not prescribe the concrete measures for the realization of human rights, it does set important parameters. When comparing water and sanitation with the realization of other socio-economic rights, different models of financing become apparent. Some countries use public funding for health care systems, while systems in other countries rely on individual contributions. The realization of the human right to food usually relies on individual sourcing to a significant extent, while the human rights framework requires States to provide assistance to individuals who need it, and States may fix pricing for essential foodstuffs, to ensure that these remain affordable for all. For the realization of the right to education, the International Covenant on Economic, Social and Cultural Rights specifically requires States to ensure that primary education is free to all and to progressively introduce free education for secondary and higher education, hence relying on public financing for education. The realization of the human rights to water and sanitation is most likely to rely on a mix of sources of financing. From an environmental perspective, charging for the use of water is one means of discouraging wasteful consumption. On the other hand, the public health dimension of water and sanitation suggests a significant role for public financing. Sanitation, in particular, not only affects the

individual's right to access a toilet or latrine, but also other people's human rights, including the right to health (see the Special Rapporteur's reports on sanitation (A/HRC/12/24), paras. 23-29, and on wastewater (A/68/264). The State therefore has a significant role to play in ensuring that the necessary funding is available for service provision, and for using public financing where services would otherwise be unaffordable.

6. The human rights framework does not, however, rule out tariffs and user contributions for water and sanitation provision. Water and sanitation do not necessarily have to be available free of charge. The human rights framework recognizes that revenues have to be raised in order to ensure universal access to services. If everyone obtained water and sanitation free of charge, that could actually harm low-income households by depriving governments and service providers of the revenue needed to expand and maintain the service, posing a risk to the overall economic sustainability of the system or to the State's capacity to protect and fulfil other human rights. Moreover, where a policy provides free water distributed through utility networks, this tends only to benefit those who have access to a formal water supply. As the majority of poor and marginalized individuals and groups in developing countries do not enjoy access to a formal water supply, they will not be able to access free water provided by utilities. From a human rights perspective, public funds need to be directed towards extension of services for the most disadvantaged and for ensuring that such services are affordable.

7. Where people face an inability to pay, the human rights framework indeed requires free services that must be financed through sources other than user contributions. To ensure both affordability and financial sustainability, States must look beyond tariffs toward a broader system for financing water and sanitation services, including taxes and transfers, and cross-subsidization through public finance or tariff systems (see the Special Rapporteur's report on financing (A/66/255)).

8. The human rights to water and sanitation also have important implications as to how payment for services is raised. Human rights call for safeguards in the process of setting tariffs and determining subsidies, both in procedural and substantive terms, which include the human rights principles of transparency, access to information, participation and accountability. They oblige States to ensure that the cost of accessing water and sanitation is affordable and meets the needs of marginalized and vulnerable individuals and groups. The aim of ensuring financial sustainability at the macro level must never lead to situations in which individuals are unable to afford services. Affordability assessments must consider the totality of rights and the expenses people face to realize their human rights. This is all the more important in the context of austerity measures that have resulted in the significant overall burdening of people.[1] Particularly during times of economic and financial crises, decisions to introduce or raise tariffs need to be carefully considered. Where price rises happen concurrently with rising unemployment and social spending reductions, they leave many unable to afford essential services.

9. Deciding on the most effective system to ensure affordability will often require focused studies that examine all of the above variables, from assessing the types of services to which individuals have access, to considering how public financing can be used most efficiently. In an attempt to improve affordability of service provision in France, as part of the Economic Commission for Europe (ECE) Protocol on Water and Health, France is

[1] See European Parliament, Directorate-General for Internal Policies, "The Impact of the Crisis on Fundamental Rights across Member States of the EU - Country Report on Ireland," 2015, available at http://www.europarl.europa.eu/thinktank/en/document.html?reference=IPOL_STU(2015)510016, p. 65.

carrying out a study using a range of different tariff and subsidy systems to determine how affordability can best be assured.[2]

10. Discussions on affordability often focus on tariffs in the context of networked supply. While there are important challenges, this ignores that many people living in disadvantaged areas and within marginalized communities do not benefit from public networks, but rely on on-site or communal, often informal, sanitation and water solutions. It has been estimated that up to 25 per cent of the urban population of Latin America and almost 50 per cent of the urban population in Africa relies on small-scale informal providers to some extent.[3]

11. In many instances, these communities pay high prices for low-quality services – adding another layer of complexity to discussions on affordability. As informal service providers by definition tend not to be regulated for quality or affordability, they charge prices determined by what the market will bear or by price-fixing between providers (including cartel-like structures). For people in disadvantaged communities, paying for formal service provision is often a welcome opportunity to have a more regular and better-quality service, often at a lower price. These dimensions need to move centre stage in the discussion on finding solutions for ensuring affordable service provision for all.

12. Against this background, the present report presents an overview of the various costs that individuals and households must pay for water, sanitation and hygiene. It seeks to define affordability from the perspective of human rights and discusses the importance of setting concrete standards to determine affordability. It puts affordability in the broader context of ensuring environmental and economic sustainability, and discusses the impact of disconnections as a result of inability to pay. The report discusses who benefits from public financing in current practice, and then considers a variety of different mechanisms to ensure affordability of services for all through public financing and devising appropriate tariff schemes, including their advantages and challenges. Finally, the report discusses the importance of regulating and monitoring affordability before providing conclusions and recommendations.

II. Costs associated with water, sanitation and hygiene

13. This section considers the various costs associated with water, sanitation and hygiene, not only direct costs, but also time costs, as well as the additional burdens that corrupt practices and inadequate governance may cause. It concludes by considering the costs of inaction.

A. Different types of costs

14. In order to assess and ensure affordability, States need to look into the overall cost of delivering service that can have implications to the user's payments. These include not only those regularly occurring costs such as operation and maintenance, but also the entire "life-cycle" costs of services, which include construction and rehabilitation (where

[2] Ministry of Ecology, Sustainable Development and Energy – France, "Expert group on equitable access to water and sanitation", 2015, available from http://www.unece.org/fileadmin/DAM/env/documents/2015/WAT/05May_11-12_Paris/Meunier_FranceMEDD_ExperimentationSocialTariffs.pdf.

[3] Laura Sima and Menachem Elimelech, "The informal small-scale water services in developing countries", in *Water and sanitation-related diseases and the environment: Challenges, interventions, and preventive measures*, Janine M. H. Selendy (ed.) (Wiley-Blackwell, 2011), p. 231.

necessary). This life-cycle cost is particularly relevant for sanitation, considering the management of wastes. Once the costs for service delivery have been estimated, a different discussion is how to recover them. This can include a variety of sources, from tariffs to external public financing and, more important to the aim of this report, how to share the revenues from different users. On this last point, affordability needs to be a key consideration in order to avoid excessively compromising the expenses of people living in poverty.

15. For water, costs range from construction, operation and maintenance, in the case of networked provision, to costs of construction and maintenance of on-site solutions such as wells or boreholes. Connection charges are often a significant barrier for those living in extreme poverty. Household contributions for water services in rural areas and in informal settlements can differ quite substantially from household contributions for piped water provision. Beyond the option of buying water from public or private suppliers, individuals may need to cover the costs of the construction, operation and maintenance of communal or individual household provision (such as a rainwater cistern[4]), the cost of purchasing containers to store water, and the treatment of water. Even where water is safe at the source, by the time it has been transported and stored for future use, there is a high risk that it will become contaminated, which leads to extra costs for household water treatment.

16. In relation to sanitation, associated costs for households range from construction of the toilet within the home and tariffs in the case of networked provision, to costs of on-site solutions such as the construction or maintenance of pit latrines and septic tanks. On-site technologies generally require regular cleaning and maintenance, including the emptying of pits or septic tanks, and the proper management and disposal or re-use of wastewater and excreta. Sanitation systems that require water for flushing, such as sewerage systems, will generally imply extra costs for the water needed for flushing toilets.

17. While often overlooked, the use of hygiene facilities and services also has costs. The main expenses, other than installation of a handwashing station, are for water and soap for handwashing and personal hygiene, for water and cleaning products for domestic and food hygiene, and for sanitary napkins or other products for menstrual hygiene management.

18. In addition to material costs of service provision, the time spent on collecting water and accessing sanitation facilities outside the home must also be valued. As women and girls are largely responsible for collecting water, maintaining and cleaning sanitation facilities, and for ensuring the hygienic management of the household, these time costs have an important gender equality dimension.

B. Costs of corruption

19. Studies have shown that corruption within the water sector is common.[5] Even where services are nominally affordable to people, corruption may increase the cost of accessing services above official pricing. There may be a lack of transparency in decisions relating to

[4] On rainwater harvesting, see Uende A. F. Gomes, Léo Heller and João L. Pena, "A National Program for Large Scale Rainwater Harvesting: An Individual or Public Responsibility?" *Water Resources Management*, vol. 26, issue 9 (2012), pp. 2703-2714.

[5] United Nations Development Programme (UNDP), *Human Development Report 2006: Beyond scarcity: power, poverty and the global water crisis* (New York, 2006); Transparency International, Dieter Zinnbauer and Rebecca Dobson (eds.), *Global corruption report 2008: Corruption in the water sector* (Cambridge University Press, Cambridge, 2008); J. Davis, "Corruption in public service delivery: experience from South Asia's water and sanitation sector", *World Development*, vol. 32, No.1 (2004), pp. 53–71.

the choice of technology or service provider, which can result in inappropriate – often more costly – choices being made. Corruption also affects prices directly when bribes have to be paid for repair work, connection or reconnection. On a larger scale, there can be corruption within tendering processes for the delivery of services. Corruption tends to disproportionately affect poor and disadvantaged individuals and groups, as they lack the necessary power to oppose the vested interests of elites, and do not have the necessary resources to pay bribes.[6]

20. Limiting corruption requires focused efforts by States, regulatory bodies and service providers. Introducing a strong legal structure based on human rights can provide for anti-corruption measures such as strengthening transparency and accountability mechanisms.[7] For instance, one city in South-east Asia recognized the importance of addressing corrupt practices in order to increase access to water and sanitation for the poor, and instituted specific measures, including focused training for employees, the establishment of public offices so that customers could pay their bills directly rather than going through bill collectors, and the introduction of meters for all connections.[8]

C. The cost of poor governance

21. Poorly managed service provision can also have a significant impact on the cost of service provision. States must work to ensure that the right incentives are in place such that providers improve the management of water and sanitation services, including through appropriate organizational structure, optimized running costs, efficient service delivery (e.g. low water losses), among other measures. It also includes strengthening the human rights principles of participation, access to information and accountability in governance structures and decision-making processes.[9] Further, where the provision of services is intended to provide profits for the provider or shareholders (whether publicly or privately owned), this imperative to extract profits can also increase costs for the user beyond levels of affordability, and prevent the company from reinvesting in the service (see Special Rapporteur's mission report for Brazil (2014), A/HRC/27/55/Add.1, para. 68).

D. The price of inaction

22. The costs of ensuring access to water and sanitation may be high. Yet, the price of not investing is even higher. The lack of access to safe water, sanitation and hygiene underlies severe human costs such as poor health and high mortality rates, as well as major economic losses – globally, an estimated $ 260 billion is lost yearly due to lack of access to sanitation alone.[10] In developed nations, advances in life expectancy and child mortality accompanied economic growth only after governments began making substantial investments in water supply and, more importantly, sanitation.[11]

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[6] See Transparency International, *Global corruption report 2008* (footnote 5 above), p. 6.

[7] Ibid.

[8] Ibid, p. 48.

[9] WaterAid, *Reforming public utilities to meet the Water and Sanitation MDG* (2006), pp.5-7.

[10] World Bank, "WB Confronts US$260 Billion a Year in Global Economic Losses from Lack of Sanitation", 19 April 2013, available from http://www.worldbank.org/en/news/press-release/2013/04/19/wb-confronts-us-260-billion-a-year-in-global-economic-losses-from-lack-of-sanitation.

[11] UNDP, *Human Development Report 2006* (footnote 5 above), pp. 28-31.

23. Studies have shown evidence of a positive cost-benefit ratio. One analysis estimated that for each dollar invested in achieving universal access to basic drinking water at home, the average return is $4. For universal access to basic sanitation at home, the estimated benefit is $3, while the return on eliminating open defecation in rural areas is $6 per dollar spent.[12] The safe management and treatment of wastewater has received less attention in cost-benefit analyses. While requiring large initial investments, in the long term the price of inaction is far greater than the cost of ensuring adequate wastewater management. Studies on the economic returns of sanitation interventions show that both septic tanks with treatment as well as sewerage networks with treatment have a positive cost-benefit ratio, for instance about 1:4 in the Philippines[13] and about 1:3 in Vietnam.[14]

24. Although sometimes monetized in economic analyses, interventions provide some intangible benefits related to time saved, dignity gained and diseases and deaths prevented. The particularly positive impact for women and girls of investing in water and sanitation is crucial for achieving gender equality. Environmental benefits are also significant, given that improving water and sanitation services helps combat contamination and environmental degradation.

III. Understanding affordability

A. Defining affordability and setting standards

25. Affordability, as a human rights criterion, requires that the use of water, sanitation and hygiene facilities and services is accessible at a price that is affordable to all people. Paying for these services must not limit people's capacity to acquire other basic goods and services guaranteed by human rights, such as food, housing, health, clothing and education. Affordability standards must be considered together with standards of an adequate quantity and quality of water and sanitation to ensure that human rights standards are met.

26. Affordability provisions in water and sanitation laws are quite common. For instance, in Namibia, the Water Resources Management Act requires ensuring "that all Namibians are provided with an affordable and a reliable water supply that is adequate for basic human needs".[15] In many instances, the challenge is to translate general provisions into concrete affordability standards. Such standards are essential to ensure that tariffs are set in a way that is affordable to people and to ensure accountability. Generally, people are prepared to pay a high price for water because it is essential for so many aspects of a person's life, but this does not justify a high affordability threshold. Willingness-to-pay studies therefore often deliver limited results in terms of people's actual capacity to pay.

27. A number of countries have set standards for affordability. For instance, a regulation in Indonesia explains that "Tariff shall meet the principle of affordability... if domestic expense on the fulfilment of the standard of basic need for drinking water does not exceed

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[12] Guy Hutton, Laurence Haller and Jamie Bartram, "Global cost-benefit analysis of water supply and sanitation interventions", *Journal of Water and Health* (5 April 2007), pp.481-502.

[13] World Bank, Water and Sanitation Program, "The Economic Returns of Sanitation Interventions in the Philippines", Research Brief (Jakarta, 2011), p. 4.

[14] World Bank, Water and Sanitation Program, "The Economic Returns of Sanitation Interventions in Vietnam", Research Brief (August 2011). Available from http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2011/10/05/000020953_20111005094020/Rendered/PDF/647750wsp0viet00Box361544B00PUBLIC0.pdf.

[15] Namibia, Water Resources Management Act No. 24 2004, article 26.1.

4% (four per cent) of the income of subscribers".[16] For some households, however, even a small proportion of their expenditure will be too much, and water and sanitation must be available for free in these instances.

28. It is impossible to set a generally applicable affordability standard at the global level. Any such standard would be arbitrary and cannot reflect the challenges people face in practice and the context in which they live, including how much they need to spend on housing, food and the realization of other human rights. The affordability of water and sanitation services is highly contextual, and States should therefore determine affordability standards at the national and/or local level. The human rights framework stipulates important parameters for the process of doing so, in particular in terms of participation.[17]

B. Reconciling affordability with environmental and economic sustainability

29. When seeking to ensure affordability in practice, measures to implement human rights often need to be reconciled with broader considerations of ensuring environmental and economic sustainability. "Social sustainability" in the form of affordable access must not be jeopardized in favour of measures that aim to secure economic and environmental sustainability. To be environmentally sustainable, there must be sufficient water resources of good quality available to serve existing and future users. Water tariffs should be designed to allow for access to sufficient water for essential purposes but, where necessary, to limit use for luxuries. Water resources must be protected from pollution, which means that sanitation services must include appropriate collection, transport, treatment and disposal of wastewater to protect both public health and the environment. However, sanitation tariffs must not be so high that people avoid using the service, which could put a strain on public health.

30. To ensure economic sustainability, some have argued for full cost recovery through tariffs, i.e. for water and sanitation service providers to charge full operational costs (and in some cases also construction and rehabilitation) to existing and future users. Where there are sufficient numbers of well-off people compared to those who are unable to pay the full cost of a service, full-cost recovery may be possible, with some cross-subsidization between the former and the latter. However, even in countries with a relatively well-off population, for sanitation services in particular, governments frequently provide significant amounts of public funding in order to make the service financially viable and to protect public health.[18]

31. In many developing countries, there are insufficient numbers of people who are well-off to provide a cross-subsidy. In these situations, full cost recovery only through tariffs will not be a feasible option. Public finance may be needed in such instances to ensure affordability for all households. To make such financing available and achieve affordability for all, as a first step States should make better use of budgets already allocated for water and sanitation, specifically to reduce inequalities in access to services.

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[16] Indonesia Minister of Home Affairs, "Technical guidance and procedures for regulating tariff of drinking water in regional administration-owned drinking companies", regulation No 23/2006, 3 July 2006, Article 3.2, available from http://faolex.fao.org/docs/pdf/ins67962.pdf.

[17] For interesting insights of participatory process to decide on their own poverty lines, see Asian Coalition for Housing Rights, "Housing by People in Asia" No. 19, September 2014, available from http://www.achr.net/upload/downloads/file_16102014142111.pdf.

[18] International Water and Sanitation Centre report 2015, available from http://www.publicfinanceforwash.com.

C. Disconnections as a result of unaffordable services

32. The affordability of water and sanitation services and disconnections are inextricably linked, as in many instances the failure to pay for services leads to disconnection.

33. Disconnection of services due to an inability to pay for the service is a retrogressive measure and constitutes a violation of the human rights to water and sanitation (Committee on Economic, Social and Cultural Rights, General Comment No. 15 (2002) (E/C.12/2002/11), para. 44a). Disconnections are only permissible if it can be shown that households are able to pay but are not paying. The South African 1997 Water Services Act states that disconnections may not result in a lack of access to services for non-payment where the individual is unable to pay for basic services.[19] More recently, France adopted the Brottes Law, which prohibits disconnections for inability to pay.[20]

34. In some instances, disconnections have taken place on a large scale. For instance, the Detroit Water and Sewerage Department has been disconnecting water services with no consideration of whether people are able to pay or not. This led the former Special Rapporteur to state, "when there is genuine inability to pay, human rights simply forbids disconnections", and to demand the residents' immediate reconnection.[21]

35. Pre-paid water meters are suggested as an option for service providers to ensure that households and individuals pay for the water that they use, as they require payment in advance.[22] This may lead to "silent disconnections" due to lack of ability to pay, and can be a violation of the human rights to water and sanitation. Therefore, plans to use pre-paid meters must be carefully examined before they are installed. Some pre-paid water meters will allow for access to a limited quantity of water even where the individual or household has not paid. The quantity, continuity and quality of water would need to be carefully assessed for human rights compliance.

IV. Mechanisms for ensuring affordability in practice

36. To ensure affordability for all and a sustainable system, States must develop appropriate pricing, tariff and subsidy structures. In the following section, the report explores how public financing is allocated, and who is likely to benefit from this. The report then seeks to discuss how financing mechanisms can be used to effectively target those groups who rely on these mechanisms to ensure the affordability of services.

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[19] South Africa, Water Services Act, art. 4 (3)(c).

[20] France, Loi n° 2013-312 (15/04/2013), art. 19, which modifies the Code de l'action sociale et des familles, art. L115-3, available from http://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000027310001&fastPos=1&fastReqId=760965938&categorieLien=cid&oldAction=rechTexte (in French).

[21] Press statement by the Special Rapporteur on the human right to safe drinking water and sanitation and others, "Detroit: Disconnecting water from people who cannot pay – an affront to human rights, say UN experts", 25 June 2014, available from http://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=14777.

[22] Coalition Against Water Privatisation, "The struggle against silent disconnections – Prepaid meters and the struggle for life in Phiri, Soweto" (2004), pp. 4-5, available from https://www.citizen.org/documents/Phiri.pdf.

A. Public finance for water, sanitation and hygiene: Who benefits and who does not?

37. Almost all large-scale water and sanitation systems receive some level of public financing. For sanitation in particular, while it has long been known that the costs of not having access far exceed the actual cost of providing access, it has been hoped that private sector participation would be sufficient to improve access to sanitation. However, more recently, research by the World Bank and others is beginning to show that it is unrealistic for the private sector to fill the service gap alone.[23] States must be the driving force in investments in sanitation, in particular to cover the costs of constructing and maintaining infrastructure, and in some cases also for operation, for example where pit-emptying is prohibitively expensive.

38. In many instances, however, public financing is unequally distributed. Middle-class households often benefit from subsidies, both direct subsidies and "hidden" subsidies. Direct subsidies include tax breaks or financial incentives for constructing a toilet, which, when poorly targeted tend to benefit middle-income families. Subsidies are "hidden" when public financing is used to construct infrastructure and services that are intended to be used by all, but in fact are only available to middle- and high-income households.

1. Public finance for networked provision

39. Public finance is very common in large-scale piped water and sewerage systems, with governments (and other funders, such as multilateral and bilateral donors) investing significantly in networks, water treatment plants, wastewater treatment plants and trunk sewers. Provided that all households within a city are able to connect to use these services, this may be an efficient approach to ensuring that public finances are used well for water and sanitation service provision, even if it also results in subsidizing service provision for those who would not need such support to ensure affordability.

40. In the majority of developing countries, piped water and sewerage systems are accessible only to a minority of those living in urban areas – and to very few of those living in rural areas.[24] Focusing public finance on networked provision thus disproportionately benefits comparatively better-off households, unless specific action is taken to extend networked provision to all residents.

41. Public finance may also be provided for the maintenance and extension of water and sanitation services and facilities, including for connection charges. Where extensions are expected to reach all households, they can be an appropriate form of providing support to low-income households, as they will ensure more affordable and regular charges for water and sanitation than charges of informal provision.

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[23] World Bank, Keynote Speech at the 2014 Sanitation and Water for All High Level Meeting by Shanta Devarajan, Chief Economist, World Bank, April 11th 2014, available from http://sanitationandwaterforall.org/?download=663; Guy Norman, Catarina Fonseca and Sophie Trémolet (2015), "Domestic public finance for WASH: what, why, how?" *Finance Brief 1*, Public Finance for WASH, available from http://www.publicfinanceforwash.com/sites/default/files/uploads/Finance_Brief_1_-_Domestic_public_finance_for_WASH.pdf.

[24] World Health Organization (WHO)/United Nations Children's Fund, Joint Monitoring Programme, "Progress on Sanitation and Drinking Water 2015 Update and MDG Assessment" (Geneva, 2015), pp. 8-9.

2. Communities in informal settlements

42. Residents of informal settlements often do not enjoy formal service provision, receiving their services from a range of different, often informal and/or small-scale providers or through self-supply. For water services, this can include water kiosks, water vendors that come to a user's home, as well as piped water delivered to the household. For sanitation, there is an even larger range of types of service, from no service at all through substandard pit latrines (seldom emptied and often overflowing) to shared or community-level toilets, to connections to a rudimentary sewage system, where wastes are not treated, to small-scale sewage systems with adequate treatment plants. Given this range of services that exists outside the formal system, any pricing, subsidy or tariff system can seem irrelevant to an often substantial part of the population. In many cities, tariff structures, subsidy systems or other special measures are only accessible for households with a formal address or to a registered household or individual.

3. Communities relying on self-supply

43. Local governments often lack the capacity to support sustainable access to water and sanitation services, in particular in rural areas. As a result, donors and local governments have often turned to promoting community management approaches. Unfortunately, there continues to be a high rate of failure under community management. One study estimated that an average of 30 per cent of rural hand pumps in sub-Saharan Africa are not working, with the figure rising to as high as 65 per cent in some countries.[25] Explanations for these situations include a lack of local technical skills, management capacity, spare parts, or funds to pay for the necessary repairs. Further, as people are understandably unwilling to pay for services that are unreliable, there is inadequate funding for repairs. Institutional reform, developing communities' capacity, and increased financial and human resources are therefore required to realize the human rights to water and sanitation in rural areas.[26]

44. On the other hand, significant inroads have been made through Community-Led Total Sanitation in expanding access to sanitation. Recognizing that improving sanitation relies to a large extent on practicing safe and hygienic sanitation, the approach focuses on mobilizing communities to analyse and improve the situation with regard to open defecation.[27] Community-Led Total Sanitation is in principle opposed to the provision of subsidies based on the premise that subsidized sanitation often does not align with people's preferences and that such solutions have often been unsustainable by creating a culture of dependency.[28]

45. The approach, or its implementation in particular cases, has encountered some criticism from the perspective of human rights,[29] including concerns about the affordability of adequate sanitation for the most disadvantaged due to the lack of subsidies. Without external support, people living in extreme poverty may only be able to build very basic

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[25] Tom Slaymaker and Catarina Fonseca, "Framing paper JMP post-2015 Working Group on Water" (2012), available from http://www.wssinfo.org/fileadmin/user_upload/resources/post-2015-Water-Working-Group-Framing-Paper-v3.pdf.

[26] See Organization for Economic Cooperation and Development/Development Co-operation Directorate Secretariat and World Water Council, Donor profiles on aid to water supply (2008), available from http://www.oecd.org/dac/stats/41752319.pdf.

[27] See Kamal Kar and Robert Chambers, *Handbook on Community-Led Total Sanitation*, (Plan UK and Institute of Development Studies, London and Brighton, 2008), p. 7.

[28] Ibid, p. 8.

[29] See Jamie Bartram and others, "Commentary on the Human Right to Sanitation: Should the Right to Community-wide Health be won at the Cost of Individual Rights?" *Journal of Water and Health*, vol. 10, No. 4 (2012), pp. 499-503.

latrines and do not always have the means to afford maintenance and improvements.[30] Some variants of Community-Led Total Sanitation are open to using external subsidies for the most disadvantaged in communities. Some suggest a sequencing approach to the use of public finance. While the initial investments in hardware are expected to be made by the community, public finance should be used in the long term to create the enabling environment for sustainable sanitation and ensuring public health, for instance for maintenance and pit emptying, or through public health interventions that promote sanitation and good hygiene practices.[31] Some schemes have provided microfinance for the construction of latrines, which is then paid off over a two- or three-year time frame. This can be an effective way of spreading the cost, but affordability concerns will remain for the poorest households.

46. More generally, Community-Led Total Sanitation encourages community support and assistance from better-off households to people living in greater poverty. Yet many communities are not a coherent whole: there are entrenched power asymmetries and inequalities. People not only experience different levels of poverty and deprivation, but may be marginalized on grounds of ethnicity, caste or other factors. There may be instances where community support is not forthcoming. In other instances, people may feel that they have to rely on the charitable benevolence of others rather than feel entitled to the realization of their right to sanitation.

47. In such instances, as in other contexts of self-supply, the human rights framework stresses that States have an obligation to support people in the realization of their human right to water and sanitation, where needed with financial assistance. States may not absolve themselves of their human rights obligations by relegating responsibilities to communities.[32] What must be ensured is that sanitation and water services are affordable to even the most disadvantaged member of a community.

B. Ensuring that public financing benefits the most disadvantaged

48. The current reality is that public financing for water and sanitation largely benefits better-off parts of society. Public finance is largely used for large-scale infrastructure in urban areas, which is enjoyed predominantly by middle- and high-income households.

49. The first step to ensuring that public financing is targeted toward the most disadvantaged is to acknowledge the inherent inequalities and biases in the current distribution of public financing. On that basis, States must adopt measures to reach the people who rely on public finance to ensure the affordability of water and sanitation services for all and to reduce inequalities in access. States need to reallocate resources to the most disadvantaged. Reallocating current public resources may mean extending access for all to citywide systems in urban areas or shifting from high-cost interventions that serve

[30] Mary Galvin, "Talking shit: is Community-Led Total Sanitation a radical and revolutionary approach to sanitation?" *Wiley Interdisciplinary Reviews: Water*, vol. 2, issue 1 (January/February 2015), pp. 9-20.

[31] For instance, see Global Sanitation Fund, *Progress Report 2014*, p. 4, available from http://www.wsscc.org/sites/default/files/publications/global_sanitation_fund_progress_report_2014_web.pdf.

[32] See the Special Rapporteur's report on financing (A/66/255), para. 53; see also Galvin, "Talking shit" (footnote 30 above), p. 17.

limited numbers of people to low-cost interventions that provide services to more people, particularly those who most need assistance.[13]

50. One option is seeking to develop truly universal systems that include everyone. Any such universal system for distributing public finance would include people who do not need such funding to access services. This raises questions in terms of the most appropriate use of available resources. Yet this needs to be carefully balanced against the risk of being under-inclusive and leaving out parts of populations that do rely on subsidies to ensure the affordability of services. Any type of targeting risks not reaching the people who are most in need. As a general principle, from the perspective of human rights, unintended exclusion is far more serious than unintended inclusion.

51. Research suggests that some governments have succeeded in effectively using public funding for increasing access to sanitation. For instance, Thailand achieved nearly universal access to sanitation in the late 1990s due to sustained funding over decades based on a comprehensive programme. The Government has provided subsidies through revolving funds as well as funding for specific activities, with villages having flexibility in allocating funds to those most in need.[14]

52. Recent projects in Dar es Salaam (United Republic of Tanzania), Blantyre (Malawi), Chinhoyi (Zimbabwe) and Kitwe (Zambia) driven by slum or shack dweller federations seek to develop citywide sanitation provision in situations where households can only afford $3-$4 per month. They look into choices for low-income households, loan financing and the crucial role of engagement with local authorities from the outset.[15]

53. Where States choose to adopt universal systems for subsidizing service provision, they need to ensure that these are truly universal rather than reaching only as far as networked provision does. Financing for universal access, and indeed the universal realization of human rights, does not necessarily require one universal system. On the contrary, in many countries it will mean additional approaches that are targeted to reach people beyond utility networks.

C. Challenges in targeting

54. Where States adopt targeted measures, this also poses challenges. In practice, unfortunately, such measures often fail to reach the target population for a variety of reasons, including:

(a) Target groups are not informed of the availability of subsidies or financial support;

(b) There is excessive paperwork or a requirement for specific pieces of documentation that low-income or marginalized people may not have;

(c) The target groups are not involved in the design of the mechanism;

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[13] See Kavita Wankhade, "Urban sanitation in India: key shifts in the national policy frame", *Environment and Urbanization*, vol. 27, No. 2 (2015), pp. 1-18.

[14] WaterAid and Sanitation and Hygiene Applied Research for Equity, "Evaluating the effectiveness of public finance for sanitation: A synthesis report", 2013, pp. 6-7, available from http://www.wateraid.org/what-we-do/our-approach/research-and-publications/view-publication?id=a2a29c88-b69b-46b0-8578-b0fb80ac6ae6.

[15] Evans Banana and others, "Sharing reflections on inclusive sanitation", *Environment & Urbanization* vol. 27(1) (2015), pp. 19–34.

(d) In most countries where subsidies are applied through tariff systems, these are only available to people connected to networks, thus excluding those who rely on kiosks, standpipes or public toilets;

(e) Often, due to an increasing block tariff structure, consumption subsidies do not benefit large families or multiple households sharing one water connection;

(f) Public financing is available only to those who have secure land tenure, thus excluding those living outside the formal legal system;

(g) Those who are responsible for allocating public funding engage in corrupt practices;

(h) Those who are connected to water supply services but not to sewerage networks are often disadvantaged by cross-subsidies between water and sanitation services. This subsidy results in persons who have a water connection but no sewerage connection subsidizing better-off people or households that have such a connection;

(i) In many instances, subsidies for water are targeted towards commercial or industrial users. Where such subsidies benefit users that do not actually rely on them for their livelihoods, they should be eliminated or reduced to free up resources for the benefit of the population in need.

55. In all cases, it is critical that any sort of public financing is transparent, clearly explained and widely promoted to ensure that those entitled to it receive it, to reduce the scope of corruption, and to analyse whether the mechanism has been effective.

D. Subsidies based on income, geographic location and types of access

56. In different contexts, different mechanisms have been used with the aim of targeting financial support at those individuals and groups who rely on it to ensure the affordability of services. Subsidies could apply to low-income households, to areas populated predominantly by low-income communities, or to small-scale services likely to be used by those living in poverty or on a low-income.

57. Targeted subsidies can be provided at the household level based on income. In many cultures, however, there is significant stigma attached to the receipt of subsidies, in particular where the application for the subsidy becomes publicly known. In a country in Africa, for example, there are subsidies available for a range of social services, but many people choose not to register even where they are eligible reportedly due to the stigma attached. One way to overcome such stigmatization would be to adopt ways of distributing subsidies that do not publicly expose people. Beyond this, however, broader cultural changes are needed in the perception of subsidies to overcome the often internalized shame and stigma of relying on public subsidies.

58. Targeting schemes that are based on levels of household income or expenditure may be costly, requiring administratively labour-intensive surveys to assess who is eligible, except when this is available information for other administrative needs such as taxes. Targeting is especially difficult where there is a large informal economy. More generally, such targeting is often imprecise. Even sophisticated social security systems can exclude significant numbers of the poorest residents, particularly those living in rural areas, where it may be difficult to keep people informed of their entitlements.

59. In some cases, household income or expenditure data is not available. In such cases, other indicators such as the type of access (for example, whether a small-scale facility is used), property value, size of the residence or geographical location can be used to evaluate the economic capacity of users.

60. While being easier and cheaper to administer, they have the drawback of not always being able to differentiate between people living in poverty, who may be able to pay a small amount, and people living in extreme poverty, who cannot afford to pay more than a nominal sum or anything at all. In many instances, it may be useful to utilize a mixture of mechanisms. For example, a comparison of schemes of subsidies in Chile (based on household means) and in Colombia (based on categories of socio-economic status and socio-geographic context) suggests that means-tested subsidies are more effective at identifying poor households than geographically targeted schemes.[36] For example, it may be beneficial to provide subsidies automatically in low-income areas, but to permit people outside such areas to apply for subsidies on the basis of their low income. Moreover where an income supplement is provided, households that are not connected to a network, including those living in rural areas, could also be eligible.

E. Social protection floors

61. A broader mechanism for achieving access to water and sanitation services for people living in poverty is to put in place "social protection floors". These are nationally defined basic social security guarantees that ensure access to essential services, including water and sanitation, as well as providing basic income security to those in need.[37] Human Rights Council resolution 28/12 of 9 April 2015 acknowledged "that social protection floors may facilitate the enjoyment of human rights… safe drinking water and sanitation, in accordance with the human rights obligations of States" and encouraged "States to put in place social protection floors as part of comprehensive social protection systems" (A/HRC/RES/28/12, paras. 6 and 8). Social protection floors can be particularly relevant for achieving gender equality and protecting marginalized or disadvantaged individuals and groups. At the national level, for instance, Cambodia has made support for sanitation and water in times of emergency and crisis a key intervention under the National Social Protection Strategy for the Poor and Vulnerable.[38] In Mexico, the federal budget for social spending, which contributes to building a social protection floor, includes water supply and sewerage.[39]

F. Ensuring affordability through tariff schemes

62. Other types of mechanisms to ensure the affordability of services can be built into tariff schemes. Different tariff systems have different potentials but also limitations to ensure the affordability of services. These are generally only relevant to those connected to piped water and sewerage systems.

1. Flat rate

63. Flat rates are commonly used where meters are not installed, where a charge based on a certain volume of water used or sewage discharged would be impossible to implement. Some countries use property taxes as the basis for charging unrelated to consumption. Differentiated flat rates could be used that rise or fall depending on such criteria as

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[36] Andrés Gómez-Lobo and Dante Contreras, "Water subsidy policies: a comparison of the Chilean and Colombian schemes", *The World Bank Economic Review*, vol. 17, No. 3 (2003), pp. 391-407.

[37] International Labour Organization (ILO), "Social Protection Floors Recommendation" recommendation No. 202, 2012.

[38] UNDP and ILO, *Sharing Innovative Experiences, Successful Social Protection Floor Experiences* (2011), p. 125.

[39] Ibid., p. 299.

household size, income and property value, among others, with care taken that marginalized and vulnerable individuals and groups are not being charged an unaffordable rate.

2. Uniform volumetric tariff

64. Uniform tariff approaches depend on a metered system, where households pay a fixed rate for each unit that they use. Such systems will generally be cheaper to administer than a differentiated system. However, they do not take account of households' size or ability to pay, or whether a household has particular needs that will require more water, such as dialysis or other health needs. They will almost invariably lead to better-off households having access to more water or paying lower bills than poorer residents. Where poorer households access larger quantities of water to meet their requirements, services may become unaffordable without additional safeguards.

3. Differential pricing

65. Differentiated tariffs, which intend to provide a lower tariff targeted at poorer households or communities, may be more complex to administer but may help to ensure affordability even for disadvantaged households. Yet, difficulties remain in ensuring that they actually reach the target groups. In the United States, several municipalities have adopted differential pricing with the aim of higher-income households subsidizing lower-income households. Recently, the Philadelphia City Council passed legislation to establish a low-income programme to ensure that water bills are affordable in relation to income. To ensure that residents are aware of the programme, the bill places an affirmative obligation on the city to refer them to the programme.

66. Increasing block tariffs is a common model for differential pricing in which differing quantities of water (or sewage) are charged at different rates. The first "block" may be set at a "lifeline" tariff – a sufficient quantity for the average household – at a low rate, generally below the cost of providing the service. Once this first "block" has been used, there is an increase in price so that households using water beyond their basic domestic and personal needs will pay comparatively more.

67. To ensure affordability for all households, it is imperative that the blocks are set appropriately. If the first block is too small, or the tariff is too high, poor families will not be able to afford to buy sufficient quantities of water. However, if the first block is too large, or the tariff too low, then people who do not actually need the lowest rate will benefit, which may put the overall financial sustainability of the system at risk.

68. One problem with this system is that often poorer households have more household members or share their connection with other households, and will therefore reach the maximum quantity for the "lifeline" tariff, and be forced to pay a higher rate, as is the case in Jordan (see Special Rapporteur's report, mission to Jordan (A/HRC/27/55/Add.2), para. 24). In Portugal, the regulator has therefore proposed that municipalities and providers ensure a particular tariff for people living in larger households,[40] as has Los Angeles.[41]

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[40] Water and Waste Services Regulation Authority (Portugal) Recommendation No. 01/2009 "Tariff formation for end-users of drinking water supply, urban wastewater and municipal waste management services" ("Tariff Guidelines"), para. 1.2, available from http://www.ersar.pt/Website_en/ViewContent.aspx?SubFolderPath=%5CRoot%5CContents%5CSiteEN%5CMenu_Main%5CDocumentation%5CERSAR_OtherDocuments&Section=Menu_Main&BookTypeID=5&FolderPath=%5CRoot%5CContents%5CSiteEN%5CMenu_Main%5CDocumentation&BookCategoryID=2&BookID=2077.

69. A particular model, which can be part of increasing block tariffs, involves the provision of a first block free of charge. Cities and countries such as South Africa with the Free Basic Water Policy, some Colombian cities and the minimum provided by the Delhi Jal Board are examples of such policies. Still, the same challenges remain in terms of setting the amount of free water at the right volume to ensure the overall financial sustainability of the system. The key challenge is that households connected to the formal network are likely to benefit more from such policies than households relying on informal service provision. Even where utilities or municipal authorities provide for additional water services through truck deliveries in informal areas, huge disparities in terms of the quantity and accessibility of water remain.

70. Differential pricing can also be used for different sectors, for instance using higher tariffs for industrial, commercial and public users to cross-subsidize residential users. In practice, however, such cross-subsidization is often discouraged and agricultural and industrial water use may be highly subsidized. Where such public financing is not necessary to secure livelihoods and is not directly related to the realization of human rights, existing pricing and subsidy policies should be revised to use the maximum amount of available resources for the realization of human rights.

4. Connection charges

71. Charges to a household to connect to a service can be a barrier to gain access to an existing networked service. Some countries have decided to remove these charges for all or some households in order to reduce the barriers. The costs of extending the services are then financed by incorporating them into standard service charges. Historically, many countries have used surcharges on existing users to finance the extension of the network in rural areas. Removing the connection charge is particularly relevant for low-income households to gain access to a sewerage network, as the connection charge is often a significant barrier to affordable sanitation.

G. Participation

72. In determining mechanisms for allocating public financing and setting tariffs, participation, access to information and an active role in decision-making are essential. Such decisions translate into the prioritization of resource allocation. Most important from the perspective of human rights is that such participation includes the most marginalized and disadvantaged individuals and groups to ensure that measures are taken that actually reach the ones most in need of public financing. This relates to decisions at the national level concerning overall resource allocation as well as decisions at the local level, including on the prioritization between different parts of a municipality to ensure citywide service provision, including in informal settlements.

73. At a broader level, communities have used participatory wealth rankings as a way of assessing poverty to determine how to target measures within their communities. Determining relative poverty in a community allows for targeting on that basis. Such participatory processes can provide detailed insights on local poverty and often include access to water as an indicator in the analysis.[42]

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[41] Sonia F. Hoque and Dennis Wichelns, "State-of-the-art review: designing urban water tariffs to recover costs and promote wise use", *International Journal of Water Resources Development*, vol. 29, No. 3 (2013), pp. 472–491.

[42] See e.g. James Hargreaves and others, "'Hearing the Voices of the Poor': Assigning Poverty Lines on the Basis of Local Perceptions of Poverty. A Quantitative Analysis of Qualitative Data from

74. Participatory budgeting is increasingly common in municipalities across the world, enabling residents to agree on the budget priorities of local government. Such processes have often contributed to improving basic service provision, including water and sanitation.[43]

V. Regulation and monitoring

75. The discussion on ensuring affordability has repeatedly pointed out the crucial role of regulation and monitoring.

A. Regulating service provision for affordability

76. Ensuring the affordability of water and sanitation services requires an effective legal and policy framework, which includes a strong regulatory system. The International Water Association Lisbon Charter recognizes the importance of regulation, recommending that regulators "supervise tariff schemes to ensure they are fair, sustainable and fit for purpose; promoting efficiency and affordability".[44]

77. Once a tariff system that meets affordability standards has been developed, the body responsible for regulating service providers should be able to ensure both that the tariff system is correctly applied, and that it is having the desired impact on affordability levels for all users. Likewise, a regulatory body, in collaboration with the relevant government department, can ensure that public financing is adequately targeted. Complaints mechanisms, put into place by service providers or regulators, can support these processes.

78. Particular challenges arise for regulation in the context of small-scale and informal provision, as governments often do not have any control over the operation of these providers. Governments may formalize the informal sector while keeping the small-scale nature of the provision through effective regulation, such that the small-scale providers serve as contractors to the government. This is the strategy that is being initiated in Nairobi, Kenya, where water kiosks in informal settlements are supplied by and registered with the utility, and the tariff is fixed by the regulatory body. However, this tariff is not always complied with.[45] Where households rely on informal service provision, governments should also provide support in terms of management and technical support to increase the quality and affordability of their services. A similar approach is taken in Maputo, Mozambique, where the regulator supports informal service provision in the absence of the capacity of the utility, in the short-to-medium term, to deliver services to all residents.[46]

79. Above all, regulation of informal and small-scale service provision should assist in increasing access to water and sanitation for poor and marginalized households, and not

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Participatory Wealth Ranking in Rural South Africa", *World Development*, vol. 35, No. 2 (February 2007), pp. 212–229.

[43] Yves Cabannes, "Contribution of Participatory Budgeting to provision and management of basic services: Municipal practices and evidence from the field", *Environment and Urbanization*, vol. 27(1) (September 2014) pp. 257–284.

[44] International Water Association, *The Lisbon Charter: Guiding the Public Policy and Regulation of Drinking Water Supply, Sanitation and Wastewater Management Services*, art. 4.2.

[45] See "Statement by the United Nations Special Rapporteur on the human right to water and sanitation (Visit to Kenya, 22-28 July 2014)", available from http://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=14912&LangID=E.

[46] Catarina de Albuquerque, *Realising the human rights to water and sanitation: A handbook by the UN Special Rapporteur*, booklet 4 (Portugal, 2014), p. 49.

hinder such access. Formalization and regulation of informal service provision must pay due attention to the impact of this process on levels of access, affordability and quality of service provision. Where States seek to replace informal service provision with formal providers, they must ensure that people can actually afford these alternatives and do not experience retrogression in the realization of their human rights.

B. Monitoring affordability

80. Monitoring affordability is essential for assessing whether standards are being met, and whether people in fact have access to affordable services. Unless efforts are made to monitor whether services are affordable for all, States and service providers alike will struggle to provide appropriate support to individuals and households that may have difficulties in paying for services.

81. However, monitoring affordability is not a straightforward process. Accurate and meaningful monitoring of affordability is extremely complex. If carried out on the basis of an affordability standard, the necessary parameters for calculating affordability – the expenses for accessing water and sanitation in comparison to overall household expenditure, and the real income of a household – are difficult to measure. Monitoring whether a household's expenditure on water and sanitation exceeds a specific proportion of its income in a specific context is not easily done, given the precarious incomes of many low-income households, and the many different types of expenses for water and sanitation services in informal settlements, where affordability concerns are most acute. Given these difficulties, States often use an "average" or a "lowest" income level, and an assumed acceptable volume of water to set appropriate service charges. However, such generalizations hide whether individuals can actually afford services in their particular context, which may involve a large household, or individuals with specific health problems.

82. Other approaches to monitoring affordability take a different starting point. Rather than relying on an absolute affordability threshold, they look at the impact that the cost of water and sanitation services has on the enjoyment of other human rights. Human rights monitoring can greatly contribute to qualitative, more contextualized monitoring. For instance, treaty bodies can provide details on the impact of the lack of affordability on people's lives, including through disconnections, the challenges people face, and the interlinkages with the realization of other human rights.

83. The ECE Protocol on Water and Health has developed an Equitable Access Scorecard, which assists States to monitor whether services are affordable. This scorecard looks beyond the affordability of tariffs to other measures that Member States may employ to ensure affordability. This includes monitoring the inclusion of affordability concerns in water and sanitation policy, the affordability of self-provision, whether public funding is made available to address affordability concerns, how much public funding has actually been spent on affordability concerns, and whether social protection measures are effective in ensuring affordability.[47]

84. In terms of global monitoring, there are heightened challenges due to data gathering and comparability. The proposed goal 6.1 of the Sustainable Development Goals explicitly refers to achieving affordable drinking water for all, hence calling for including the criterion of affordability in global monitoring.

[47] ECE/WHO Protocol on Water and Health, Equitable Access Scorecard 2014, chapter 4, available from http://www.unece.org/?id=34032.

85. For households that receive water and sanitation through utilities, data is available through the International Benchmarking Network for Water and Sanitation Utilities, which includes data on water tariffs charged by a significant number of utilities.[48] Beyond such existing initiatives, a review of potential indicators demonstrates the complexity of monitoring affordability.[49] Determining and monitoring the costs of non-networked supply and including them into measures of affordability is particularly challenging, but essential from the perspective of human rights. Focusing solely on utility tariffs bears the risk of severely underestimating expenses and would paint an overly positive picture of affordability that only captures the better-off, while neglecting the very real challenges that the most disadvantaged people and communities face in accessing water and sanitation. This review shows that monitoring affordability in its complexity (including water, sanitation and hygiene access expenditure) is feasible, but would require a combination and analysis of data from different sources.[50] The Special Rapporteur encourages States and international organizations to explore these options further to ensure more comprehensive monitoring of the affordability of access to services.

VI. Conclusion and recommendations

86. **Affordability is key for the realization of the human rights to water and sanitation. Ensuring affordable service provision for all people requires a paradigm shift – starting from the perspective of human rights. Economic sustainability and affordability for all people are not impossible to reconcile, but human rights require rethinking current lines of argumentation and redesigning current instruments. The main challenge is to ensure that targeted measures and instruments do, in fact, reach the people who rely on them most. For instance, tariffs must be designed in such a way that the most disadvantaged of those connected to formal utilities receive the assistance they need. It also requires ensuring that public finance and subsidies reach the most marginalized and disadvantaged individuals and communities, who are often not (yet) connected to a formal network, who may live in informal settlements without any formal title or in remote rural areas where self-supply is common, and who are often overlooked or deliberately ignored in current policymaking and planning.**

87. **The Special Rapporteur offers the following recommendations. States should take the following measures:**

(a) Assess what financing mechanisms and subsidies are in place, including hidden subsidies, and who benefits from them;

(b) Ensure transparency about existing and planned financing mechanisms and subsidies;

(c) Consider establishing national legislation requiring that service providers and subnational governments include affordability concerns in policies and in service provision;

(d) Set affordability standards at the national and/or local level, based on a participatory process, involving in particular people living in poverty and other

[48] International Benchmarking Network for Water and Sanitation Utilities, Tariffs Map, available from http://www.ib-net.org/en/tariffs_map.php.

[49] Guy Hutton, "Monitoring 'Affordability' of water and sanitation services after 2015: Review of global indicator options", 20 March 2012, available from http://www.wssinfo.org/fileadmin/user_upload/resources/END-WASH-Affordability-Review.pdf.

[50] Ibid.

marginalized and disadvantaged individuals and groups, that consider all costs associated with water, sanitation and hygiene;

(e) Consider affordability standards together with other standards, particularly for availability and quality, to ensure that people can afford to pay for the services based on human rights standards;

(f) Ensure participation in the process of decision-making on determining mechanisms for allocating public financing and setting tariffs;

(g) Use public financing to support access for people living in poverty and those who are marginalized or discriminated against and eliminate inequalities in access to water and sanitation services;

(h) Give careful thought particularly to ensuring the affordability of sanitation provision, where costs are frequently underestimated;

(i) Focus on ensuring affordability for the most disadvantaged, including communities in informal settlements and communities that rely on self-supply, and explore different mechanisms to achieve this;

(j) Consider the impact of mechanisms adopted to ensure affordability, whether universal systems are actually universal in scope and reach beyond networked supply, and whether targeted systems (whether based on income, geographic location, type of access or other factor) in fact reach the intended beneficiaries;

(k) Put into place strong regulatory frameworks and bodies for ensuring affordability of service provision that covers all types of services;

(l) Address corrupt practices that add to the cost of service provision;

(m) Prohibit disconnections that result from an inability to pay;

(n) Monitor affordability of water and sanitation service provision through focused studies that examine income levels in different settlements, considering all costs relating to access to water and sanitation, including hygiene and menstrual hygiene requirements;

(o) Where prepaid water meters are considered, ensure that households that face an inability to pay are not disconnected from water supply and that quantity, continuity and quality of water meet human rights standards.

88. In addition, the Special Rapporteur encourages the treaty bodies and other human rights monitoring mechanisms to pay increasing attention to the affordability of water and sanitation service provision in the particular contexts people live in.

89. The Special Rapporteur encourages States and international organizations to further explore options for global monitoring that allow for more comprehensive monitoring of affordable access to services.